Women's experiences of self-administration of misoprostol at home as part of early medical abortion

TITLE:

Women's experiences of self-administration of misoprostol at home as part of early medical abortion: A qualitative evaluation

AUTHORS:

Dr Jeni Harden MA (Hons) MPhil PhD [1]

Dr Julie Ancian MSc PhD [1]

Professor Sharon T Cameron MBChB MD MFSRH FRCOG [1, 2]

Dr Nicola Boydell BSc (Hons) PgCert MSc PhD [1]

1. University of Edinburgh, Edinburgh, UK; 2. NHS Lothian, Edinburgh, UK.

CORRESPONDING AUTHOR:

Dr Jeni Harden

Address: Usher Institute, University of Edinburgh, Old Medical School, Teviot Place, Edinburgh, EH8 9AG

Tel: +44 131 650 6991

Email: Jeni.Harden@ed.ac.uk

Word count: 2543

ABSTRACT:

Background: Between 2017 -2019 legislation was introduced in the UK that approved the home as a place for self-administration of misoprostol for early medical abortion. While research has shown that early medical abortion at home is as safe as in a clinical setting, women's experiences in the UK in light of this change have not yet been investigated. This qualitative research explored the experiences of women in one region of Scotland, UK, who accessed early medical abortion with home self-administration of misoprostol.

Methods: Qualitative interviews were conducted with 20 women who had recently undergone early medical abortion (≤ 69 days), with home self-administration of misoprostol. The data were analysed thematically using an approach informed by the Framework analytic approach.

Results: Women appreciated the flexibility that home administration of misoprostol offered, including the opportunity to control the timing of the abortion. This was particularly important for women who sought not to disclose the abortion to others. Most women valued being in the comfort and privacy of the home when preparing for self-administration although a small number highlighted some concerns about being at home. Most women reported that self-administration of misoprostol was straightforward; some expressed concerns around assessing whether their experiences were 'normal'.

Conclusions: Women welcomed the opportunity for home self-administration of misoprostol. To further improve women's early medical abortion experience we suggest that legislation be amended so that women can self-administer in an appropriate non-clinical setting, not just their home.

Keywords:

Early medical abortion
Home self-administration of misoprostol
Women's experiences.
Health service evaluation
Qualitative research

Key Messages

- Women welcomed the opportunity that self-administration of misoprostol at home gave them to control the timing of the abortion
- Most women valued being in the comfort and privacy of the home when preparing for self-administration and passing the pregnancy
- The home was a more challenging space for women who sought not to disclose the abortion to members of their household

INTRODUCTION

Research from a number of countries shows that early medical abortion with home self-administration of misoprostol (hereafter EMAH-SaM) is safe [1] and that it is acceptable to women [2-5]. Between 2017 -2019, legislation was introduced in the UK that approved the home as a place for self-administration of misoprostol for early medical abortion (≤69 days gestation). While research has shown that early medical abortion at home is as safe as in a clinical setting [6], UK women's experiences in the context of this change have not yet been investigated. This qualitative research explores the experiences of women choosing EMAH-SaM, in one region of Scotland, UK. This is all the more significant in light of the temporary approval of home self-administration of both mifepristone and misoprostol for early medical abortion, implemented in response to COVID-19 [7, 8].

In Scotland, self-administration of misoprostol for early medical abortion was approved with effect from October 2017 [9]. Formerly, women who were eligible had to make at least two clinic visits; first to administer mifepristone; second, to have misoprostol tablets administered 24h to 72h later. Women then made an accompanied journey home with their misoprostol in situ. Research has identified the challenges some women faced having to return to the clinic to administer the misoprostol; the onset of pain and bleeding, and a small risk of passing the pregnancy while travelling home [2]; difficulties arranging child care; travelling long distances for those in more remote or rural areas [10]. To address these challenges, in NHS Lothian (National Health Service, Edinburgh and surrounding region), since December 2017 women have been permitted to take the mifepristone at the clinic then return to their home address with the misoprostol tablets and self-administer. Details of the treatment regimen in NHS Lothian are provided in Table 1.

The aim of this study was to explore the experiences of women undergoing early medical abortion with home use of misoprostol in NHS Lothian in order to inform future service developments.

Table 1: NHS Lothian Early Medical Abortion (with home self-administration of misoprostol)

Qualification Criteria	<9 +6 days gestation Supporting adult at home

Location of Mifepristone Administration	In clinic
Dose of Mifepristone	200mg
Location and Timing of Misoprostol Administration	Self-administration at home at preferred time ideally 24-48 hours after mifepristone, but up to 72 hours if earlier is not possible
Dose of Misoprostol	Initial dose of 4×200 µg tablets (800 µg misoprostol) Extra dose of 400 µg misoprostol provided with instructions that it should be taken if there was no or minimal bleeding within 4 hours of the initial dose
Misoprostol administration method	Vaginal or sublingual
Support	Telephone support provided by the clinic if required. Follow-up calls are not routinely offered.

METHODS

This qualitative research is based on in-depth interviews with 20 women who had an early medical abortion with self-administration of misoprostol at home.

Data collection

Women attending a specialist abortion clinic in NHS Lothian, eligible for and selecting EMAH-SaM, were recruited between January and June 2019. At the end of the clinic visit, clinical staff informed women about the study (verbally and via an information pack) and those expressing an interest were asked to provide contact details. Of the 80 potential participants who agreed to be contacted by the researcher, 20 agreed to participate in an interview; 60 women did not respond to phone calls. Informed consent was obtained (written or verbal recording) prior to the interviews. Key characteristics of participants are outlined in Table 2.

Interviews, lasting on average 60 minutes, were conducted 2-6 weeks following the abortion at the woman's home, at the University of Edinburgh or by telephone, and were digitally recorded. Participants received a £15 voucher in recognition of their time. The topic guide

(**S1**) focused on: reasons for choosing self-administration of misoprostol at home; women's experiences of self-administration of misoprostol at home; interaction(s) with healthcare professionals; and views on abortion service developments.

Table 2: Characteristics of EMAH-SaM Study Participants

	Total (n=20)	**% of total**
Age (years)		
Mean	28.2	
Median	27	
Range	21-45	
Highest Education Level Attained		
Secondary School	6	30%
Further Education (e.g. college)	7	35%
Higher education (i.e. university)	5	25%
Postgraduate	2	10%
Employment Status		
Employed (incl. self-employed)	15	75%
Student	5	25%
Unemployed/full-time parent	0	-
Relationship Status (at interview)		
Single	4	20%
Cohabiting/married	8	40%
In relationship (not cohabiting)	8	40%
Separated	0	-
Previous births		
Yes	7	35%
No	13	65%
Previous Termination of Pregnancy		
Yes	7	35%
No	13	65%

Data analysis

A thematic analysis of the data, informed by the Framework approach, was conducted by the team (JH, NB and JA) [11, 12]. Following transcription, transcripts were subject to independent repeated reading and cross-comparison to identify recurrent themes, sub-themes and issues (including those not foreseen at the study's outset). A coding framework was developed which captured both the original research questions and emerging issues/themes. NVivo Qualitative Data Analysis software (QSR International) was used to

facilitate data coding and retrieval. Coded datasets were then subject to further in-depth analysis to allow for the identification of additional themes and sub-themes.

Ethical approval

The study was reviewed and granted ethical approval by the Usher Research Ethics Group, University of Edinburgh (Application 1864; 14 January 2019).

PATIENT AND PUBLIC INVOLVEMENT

Patients were not directly involved in the design, recruitment for, and the conduct of, the interviews. A summary of the research findings was offered to all participants.

RESULTS

Women's accounts of EMAH-SaM clustered around three core themes relating to the stages of the process: preparing to self-administer misoprostol; passing the pregnancy; being at home.

Theme 1: Preparing to self-administer the misoprostol

Women reported two key aspects that related to preparation: getting ready and choosing the right time.

Getting ready

The majority of the women reported choosing to go home immediately or soon after the clinic appointment in order to have "everything ready" (P07, 24). Preparations described by women included buying analgesics or other forms of pain relief such as hot water bottles; creating a comforting space; and buying and/or preparing comforting food. Women also spoke about trying to "relax" or "chill" and "mentally prepare for the next day, which we were told would be hectic" (P03, 28).

Choosing the right time

Several women noted the benefit of being able to control the timing of misoprostol administration, in contrast to having to administer in the clinic and then travel home.

If I had taken it then [in the clinic] I would have had to arrange some sort of transport home… I don't see how I could've travelled home in pain and then to start getting ready for the whole thing whilst already going through it. (P09, 19)

Women reported following the advice given, administering the misoprostol 24 to 72 hours after taking the mifepristone in the clinic (see Table 3). The women described several benefits of being able to choose the time they self-administered the misoprostol, it enabled them: to make preparations (as above); to time the self-administration to fit with availability of their partner or a friend, to ensure they had support; to minimise the disruption to work.

I do shift work and I was very concerned with… I still wanted to make sure I could do my shift (P12, 28)

For around one third of the women, control over timing was valued because it enabled them to complete the abortion without disclosing to others, most commonly their children or other family members.

I knew I had a limited amount of time before my husband and children came home … I managed to go to work and I managed to carry on doing everything I normally do and hide the fact that I was actually, yeah, having a termination. (P02, 36)

A small number of women did not want to disclose the abortion to their employer so the choice of when to administer the misoprostol enabled them to complete the abortion and continue in their normal work pattern, thereby avoiding disclosure.

Table 3: Method and timing of misoprostol self-administration

Route of administration	Timing of administration			
	24 hours	48 hours	Over 48 hours	Total
Vaginal	5	4	2	11
Sublingual	6	3	0	9
Total	11	7	2	20

Theme 2: Passing the Pregnancy

Getting it right: Self-administration of misoprostol

Almost equal numbers of women opted for sublingual and vaginal routes of misoprostol self-administration (Table 3). Women reported choosing the sublingual method because it

was possible to have the reassurance of a visible check that the pills were in place. In contrast, there were concerns raised about the pills 'falling out' of the vagina if not inserted 'high enough'.

> *That's why I put it in my mouth because in my mouth I can see everything, like, I knew exactly where everything was supposed to go. I think I wasn't sure that in my vagina it would be put the right way. (P15, 29)*

However, most women who administered misoprostol vaginally reported it being straightforward and familiar given their experience using tampons.

Gauging what is 'normal'

Women reported being very well informed by the clinic about the process. However some women, reported 'panic' and 'fear' about what was happening to them and difficulty being able to distinguish 'normal' symptoms from signs of 'abnormal' process in the absence of a healthcare professional.

> *You don't have a nurse with you so when you're doing everything you're like always questioning yourself 'am I doing this right? (P13, 22)*

Almost half reported that they had phoned the abortion service for support, usually in the hours immediately following the misoprostol. Some of the calls related to administration of the misoprostol; a few women vomited not long after having administered the misoprostol sublingually and were concerned about whether it would still be as effective. Most calls were reported by the women as relating to their experience of pain and/or bleeding.

Support from partner, family and friends

Many of the women said that they had appreciated the support of those around them at home throughout the whole abortion process, offering company, cups of tea, or simply just 'being there'. Two women said that they had preferred to be left alone and were glad that the opportunity to take misoprostol at home allowed greater choice for women who did not

want, or did not/could not have anyone there with them, despite this not being formally permitted.

> *I think now that they give you the pills to take home you can sort of get away with not having a person with you, where before they wouldn't give you the pills to go home, you had to get someone to go and collect you and pick you up from the clinic which is a lot more harder cause then you've got to explain to people what you're going through (P16, 24)*

Theme 3: Being at Home

Women described three important aspects to being at home - comfort, privacy, and control – which were enhanced by the change to misoprostol self-administration at home.

Women often contrasted their home experience with what they thought (or in some cases had experienced) having the abortion in a 'sterile' hospital setting would have been like. The home was described as a private space and a source of comfort because it was a familiar rather than a strange space; filled with comforting objects; and occupied by family and friends.

> *We fixed the living room into, like, a big massive cushion and just laid on this big massive couch bed" (P19, 24)*

> *I think it's a big comfort to be in a place you know, in a place you are comfortable with and you don't see strangers with their own disease and own issues and own lives. (P07, 24)*

Women also spoke of feeling more in control being at home. This related to being free to move around inside and outside the home; being able to control what they chose to do, for example watching TV; and being free to behave and to look however they wanted to (e.g. be impolite, be messy) without fear of judgement from others.

> *I think knowing exactly where something is when I need it, like, if I want to lie on the floor I can,… I could ignore my partner…I didn't have to respond cause I knew he*

would still understand the way partners do, as opposed to a medical professional saying 'what is your pain scale, how are you feeling, what can I do for you? (P12, 28)

Nevertheless, we cannot assume that the home is inherently an unproblematic space in which to self-administer abortion medication. Some women sought privacy from their family, either because of a sense of embarrassment around the visceral nature of abortion, or the desire not to disclose the abortion. Although not permitted under Scottish legislation [9], one participant reported booking into a hotel in an effort to conceal the abortion from members of her family. It was noticeable that the women who did not want to disclose the abortion, spoke less about comfort.

> I just done it, it wasn't a case of me being comfortable. I just made sure I had the things that I was going to need in the sense of, you know, sanitary towels and things like that. (P02, 36)

DISCUSSION

This qualitative study provided an in-depth understanding of the participants' views on, and experiences of home self-administration of misoprostol, a research gap that was identified in a recent review [13]. Our analysis supports the existing evidence that home-self administration of misoprostol is acceptable to women and improves their overall satisfaction [2, 3, 14-19].

A key benefit of home self-administration of misoprostol is the control over timing that it offers women [2, 3, 20]. Our findings highlighted that by giving women the option to take the misoprostol at home, their ability to control the timing of the abortion and so to prepare for it, was enhanced. This was particularly important for those who had to manage childcare or work commitments, but also for women who sought not to disclose the abortion to family/household members or work colleagues. Given that the lack of control over timing(s) has been noted as a barrier to accessing abortion through formal healthcare, this change may improve access, in addition to improving women's experience [4, 21, 22]. Nevertheless the women's control over timing remained limited by having to attend the clinic to administer the mifepristone. In other contexts, home self-administration of both

mifepristone and misoprostol has been demonstrated to be acceptable to women with no impact on efficacy or safety [23-25].

Our findings add weight to existing evidence that women value the comfort and privacy of passing their pregnancy in a home setting [2, 3, 14, 19] when compared to the more public, 'sterile' space of the hospital. The opportunity to self-administer misoprostol at home not only limited women's time in the clinic, but also enabled them to prepare the space of the home, thereby maximising their comfort. This raises the potential for the home to be considered a 'therapeutic landscape' – a place of healthcare provision, identified as producing health effects, and imbued with social, symbolic and experiential meaning [26, 27].

Nevertheless, we cannot assume that the home is inherently a positive therapeutic landscape for all women to undertake an abortion [27]. Reflecting research findings in countries with joint family living [28], some women choose not to disclose the abortion and for them the privacy afforded by the home is not simply being out of the gaze of strangers, but also being out of the gaze of family/members of their household. This also reinforces that moving abortion to the home does not remove the challenges that abortion stigma may pose for women [29, 30]. Indeed, the recommendation that another adult be present at home and the legal requirement that the abortion must take place at the women's home address may be challenging for some women. We would suggest that legislation be amended so that women can administer in an appropriate non-clinical setting, not just their home, for example a friend's, partner's or parents' home.

The rich data generated has enabled further exploration of women's experiences, and areas as yet unexplored in the literature. All women were recruited from one NHS Lothian clinic where 72% of women have EMAH-SaM and where, at the time of fieldwork, this had been an option for over a year [6]. The findings may not be reflective of women's experiences where the service is newer. The study sample did not include women from rural and remote communities; further research is needed to explore the impact of EMAH-SaM for access to abortion services in areas where women may face particular challenges in accessing abortion services [10, 31]; and the acceptability to women of further policy change to

enable them to administer both mifepristone and misoprostol at home, beyond the temporary provision in response to COVID-19.

ACKNOWLEDGMENTS

The authors wish to thank the women who kindly agreed to take part in the study and the clinic staff who supported recruitment to the study.

CONTRIBUTION TO AUTHORSHIP

The original idea and overall study design were conceived by JH, STC and NB. JA collected the qualitative data. JH prepared the initial manuscript, with edits by NB, JA, and STC. All authors jointly approved the version to be published and are accountable for the accuracy and integrity of the work.

FUNDING

The study was funded by the NHS Lothian Sexual Health and Blood Borne Virus Programme Fund.

COMPETING INTERESTS

None

PATIENT CONSENT FOR PUBLICATION

Not required

PROVENANCE AND PEER REVIEW

Not commissioned; externally peer reviewed

DATA AVAILABILITY STATEMENT

No data are available. Consent was not obtained from study participants.

References

1. Ngo, T.D., et al., *Comparative effectiveness, safety and acceptability of medical abortion at home and in a clinic: A systematic review.* Bulletin of the World Health Organization, 2011. **89**: p. 360-370.
2. Purcell, C., et al., *Self-management of first trimester medical termination of pregnancy: A qualitative study of women's experiences.* BJOG: An International Journal of Obstetrics & Gynaecology, 2017. **124**(13): p. 2001-2008.
3. Wainwright, M., et al., *Self-management of medical abortion: a qualitative evidence synthesis.* Reproductive Health Matters, 2016. **24**(47): p. 155-167.
4. Aiken, A.R.A., R. Gomperts, and J. Trussell, *Experiences and characteristics of women seeking and completing at-home medical termination of pregnancy through online telemedicine in Ireland and Northern Ireland: A population-based analysis.* BJOG: An International Journal of Obstetrics & Gynaecology, 2017. **124**(8): p. 1208-1215.
5. Swica, Y., et al., *Acceptability of home use of mifepristone for medical abortion.* Contraception, 2013. **88**(1): p. 122-127.
6. Finch, R.E., et al., *Impact of self-administration of misoprostol for early medical abortion: A prospective observational cohort study.* BMJ Sexual & Reproductive Health, 2019. **45**(4): p. 296.
7. Great Britain. Department of Health and Social Care, *Temporary approval of home use for both stages of early medical abortion*, Department of Health and Social Care, Editor. 2020: London.
8. Scottish Government, *Abortion – Covid-19 – approval for mifepristone to be taken at home and other contingency measures*, Scottish Government Chief Medical Officer Directorate, Editor. 2020: Edinburgh
9. Scottish Government, *Abortion - improvement to existing service - approval for misoprostol to be taken home*, Scottish Government Chief Medical Officer Directorate, Editor. 2017: Edinburgh
10. Heller, R., et al., *Barriers to accessing termination of pregnancy in a remote and rural setting: A qualitative study.* BJOG: An International Journal of Obstetrics & Gynaecology, 2016. **123**(10): p. 1684-1691.
11. Braun, V. and V. Clarke, *Using thematic analysis in psychology.* Qualitative Research in Psychology, 2006. **3**(2): p. 77-101.
12. Gale, N.K., et al., *Using the framework method for the analysis of qualitative data in multi-disciplinary health research.* BMC Medical Research Methodology, 2013. **13**(1): p. 117.
13. Moseson, H., et al., *Self-managed abortion: A systematic scoping review.* Best Practice & Research Clinical Obstetrics & Gynaecology, 2019.
14. Lie, M.L.S., S.C. Robson, and C.R. May, *Experiences of abortion: A narrative review of qualitative studies.* BMC Health Services Research, 2008. **8**(1): p. 150.
15. McKay, R.J. and L. Rutherford, *Women's satisfaction with early home medical abortion with telephone follow-up: A questionnaire-based study in the UK.* Journal of Obstetrics and Gynaecology, 2013. **33**(6): p. 601-604.
16. Raymond, E.G., et al., *Reaching women where they are: Eliminating the initial in-person medical abortion visit.* Contraception, 2015. **92**(3): p. 190-193.
17. Iyengar, K., et al., *Home use of misoprostol for early medical abortion in a low resource setting: Secondary analysis of a randomized controlled trial.* Acta Obstetricia et Gynecologica Scandinavica, 2016. **95**(2): p. 173-181.
18. Fiala, C., et al., *Acceptability of home-use of misoprostol in medical abortion.* Contraception, 2004. **70**(5): p. 387-392.

19. Alam, B., A. Kaler, and Z. Mumtaz, *Women's voices and medical abortions: A review of the literature.* European Journal of Obstetrics and Gynecology and Reproductive Biology, 2020. **249**: p. 21-31.
20. Fielding, S.L., E. Edmunds, and E.A. Schaff, *Having an abortion using mifepristone and home misoprostol: A qualitative analysis of women's experiences.* Perspectives on Sexual and Reproductive Health, 2002. **34**(1): p. 34-40.
21. Aiken, A.R.A., et al., *Barriers to accessing abortion services and perspectives on using mifepristone and misoprostol at home in Great Britain.* Contraception, 2018. **97**(2): p. 177-183.
22. Smith, J.L. and S. Cameron, *Current barriers, facilitators and future improvements to advance quality of abortion care: Views of women.* BMJ Sexual & Reproductive Health, 2019. **45**(3): p. 207.
23. Chong, E., et al., *A prospective, non-randomized study of home use of mifepristone for medical abortion in the U.S.* Contraception, 2015. **92**(3): p. 215-219.
24. Tamang, A., et al., *Medical abortion can be provided safely and effectively by pharmacy workers trained within a harm reduction framework: Nepal.* Contraception, 2018. **97**(2): p. 137-143.
25. Ngoc, N.T.N., et al., *Comparing two early medical abortion regimens: Mifepristone+misoprostol vs. misoprostol alone.* Contraception, 2011. **83**(5): p. 410-417.
26. Gesler, W.M., *Healing places*. 2003, Oxford: Rowman & Littlefield.
27. Oster, C., et al., *Inpatient versus outpatient cervical priming for induction of labour: Therapeutic landscapes and women's preferences.* Health & Place, 2011. **17**(1): p. 379-385.
28. Ganatra, B., et al., *Understanding women's experiences with medical abortion: In-depth interviews with women in two Indian clinics.* Global Public Health, 2010. **5**(4): p. 335-347.
29. Norris, A., et al., *Abortion stigma: A reconceptualization of constituents, causes, and consequences.* Women's Health Issues, 2011. **21**(3): p. S49-S54.
30. Hanschmidt, F., et al., *Abortion stigma: A systematic review.* Perspectives on Sexual and Reproductive Health, 2016. **48**(4): p. 169-177.
31. Caird, L., et al., *Initiatives to close the gap in inequalities in abortion provision in a remote and rural UK setting.* Journal of Family Planning and Reproductive Health Care, 2016. **42**(1): p. 68.